Pandemic, Social Unrest, and Crime in U.S. Cities
August 2020 Update

PREPARED FOR THE COMMISSION BY

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Suggested Citation

Summary

This study updates a previous study\(^1\) by the authors with additional crime data through the end of August 2020. It examines crime rates for ten offenses in 27 U.S. cities during the COVID-19 pandemic and social unrest over police violence. Not all cities reported data for each offense.

Homicides and aggravated assaults rose beginning in late May and June 2020. Homicide rates between June and August of 2020 increased by 53% over the same period in 2019, and aggravated assaults went up by 14%—both increases were statistically significant. Gun assaults also rose during the summer of 2020, but the increase was not significantly greater than in previous years.

Residential burglaries, larcenies, and drug offenses fell significantly during the pandemic. Residential burglary rates between March and August of 2020 dropped by 25% from the same period in 2019. The comparable decreases in larceny and drug offense rates were 24% and 41%.

Nonresidential burglaries rose sharply during a single week in early June of 2020, over the same week in 2019, and then decreased just as abruptly to prior levels. The spike is likely associated with the property damage and looting at the beginning of protests against police violence.

Domestic violence increased during the pandemic to a peak rate in mid-to-late August of 2020. Overall, however, domestic violence rates during the spring and summer of 2020 were about the same as the year before. Additional data are needed to determine whether the rise in domestic violence during the pandemic exceeded the increase during the spring and summer of 2019.

In our view, subduing the pandemic, pursuing crime control strategies of proven effectiveness, and enacting needed police reforms will be necessary to achieve durable reductions in violent crime in our cities.

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Introduction

This report updates our previous study of crime changes during the COVID-19 pandemic and the social unrest sparked by the killing of George Floyd by a Minneapolis police officer on May 25, 2020 (Rosenfeld and Lopez 2020). The current study extends the crime data to August of 2020. The results are based on ten violent, property, and drug offenses in a sample of 27 U.S. cities. The results are generally consistent with those of the previous study, which ended in June of 2020, and our conclusions have not changed. Long-lasting reductions in violent crime, we propose, will require subduing the pandemic, pursuing effective crime control strategies, and enacting needed reforms to policing.

Detailed discussion of the rationale for the research, research design, and conclusions can be found in the previous study. In this report, we summarize the data, our methods, and the findings from the updated study.

CITIES OF FOCUS

Our goal was to obtain weekly crime data between January of 2017 and August of 2020 from as many cities with populations greater than 250,000 as possible. In the current study, we examine weekly changes in ten criminal offenses for 27 cities (listed in the Appendix), a total of 191 weeks. The final sample is the same as that used in the previous study, with two exceptions: We were unable to obtain the extended data needed for New York City in time for this report, and St. Petersburg, Florida, has been added to the sample. The mean population of the sample is approximately 855,000. Los Angeles is the largest city in the sample, with 3.96 million residents, and St. Petersburg is the smallest, with 259,000 people.

We assess changes over time in the following offenses: homicide, aggravated assault, gun assault, domestic violence, robbery, residential burglary, nonresidential burglary, larceny, motor vehicle theft, and drug offenses. The crime data were obtained from the online portals of city police departments providing weekly data for the 191-week time period. The crime counts were converted to crimes per 100,000 city population. Not all of the cities reported data for each of the crimes, and offense classifications varied somewhat across the cities.
Results

We present a graphic portrayal of each of the 10 offenses that displays the average weekly offense rate for the cities included in the analysis over the 191-week period. The vertical red line indicates the week of the structural break (i.e., the statistically significant change in the series).

STRUCTURAL BREAKS

Structural breaks denote a statistically significant change in the average level or rate of change in a time series, in this case weekly crime rates between January 2017 and August 2020. The structural break procedure used here assumes the break point is unknown and allows the model to estimate the significant break in the series. Because street crimes tend to rise and fall with seasonal changes and may exhibit long term trends, the estimates are adjusted for seasonal effects and linear time trends in the crime data.

The vertical red lines throughout this report indicate the points at which structural breaks occur in the data.
HOMICIDE

Figure 1 displays the average weekly homicide rate in the 20 cities for which homicide data were available (see Appendix). There appears to be a rough cyclical pattern and a stable linear trend in the homicide rate over time. The model estimated a structural break at the end of May 2020, after which the homicide rate increased sharply through the beginning of July. It then dropped during the next several weeks through the end of August. The average city homicide rate between June and August of 2020 increased by 52.6% over the same three-month period the year before. There were 366 more homicides in the 20 cities during the summer of 2020 than during the summer of 2019.

Note: The months June, July, and August are defined as “summer” in this report.

Figure 1. Weekly Homicide Rate, January 2017 - August 2020

Key Takeaway

Homicide was 53% higher in summer 2020 than summer 2019.
AGGRAVATED ASSAULT

Aggravated assaults are assaults committed with a deadly weapon or those that result in or threaten serious bodily injury to the victim. The weekly aggravated assault rate in the 17 cities with available data exhibits a clear cyclical pattern over time, rising during the late spring and summer months and falling during the fall and winter. The model estimated a structural break in the series in early June 2020. (Recall that the structural break model adjusts the estimate for seasonal effects). The aggravated assault rate rose sharply through most of June and then decreased through the end of August. The average city aggravated assault rate between June and August of 2020 increased by 14.2% over the same three-month period in 2019. There were 1,989 more aggravated assaults in the 17 cities during the summer of 2020 than during the summer of 2019.

Figure 2. Weekly Aggravated Assault Rate, January 2017 - August 2020

Aggravated assault was 14% higher in summer 2020 than summer 2019.
GUN ASSAULT

Gun assaults are aggravated assaults committed with a firearm. The weekly gun assault rate for the 17 cities with available data moved cyclically over time and exhibited a structural break in the fall of 2019. Gun assaults rose during the late spring and early summer of 2020, but the increase was not significantly greater than the year before.

Figure 3. Weekly Gun Assault Rate, January 2017 - August 2020

KEY TAKEAWAY

No significant change in gun assault in 2020 over previous year.
DOMESTIC VIOLENCE

Domestic violence consists primarily of aggravated and so-called simple assaults, those committed without a dangerous weapon or serious bodily injury to the victim. Unlike other violent offenses, we observe a marked upward cyclical trend in the weekly domestic violence rate over time. The model estimated a structural break in the domestic violence series during the spring of 2020. That result, however, is dependent on a sharp spike in domestic violence that occurred during mid-to-late August. Omitting just two weeks in August from the domestic violence time series eliminates the structural break. Overall, the weekly domestic violence rate during the pandemic was about the same as year before. These results must be viewed with caution because they are based on just 13 cities for which we were able to obtain domestic violence data.

Figure 4. Weekly Domestic Violence Rate, January 2017 - August 2020

Whether the increase in domestic violence during the pandemic exceeded the normal upturn during the spring and summer is uncertain.

KEY TAKEAWAY
ROBBERY

Robberies are thefts committed with force or the threat of force. The average weekly robbery rate in the 24 cities with available data exhibited a downward cyclical trend from January of 2017 through August 2020. Robbery increased during the pandemic, but the increase was not significantly greater than the year before.

Figure 5. Weekly Robbery Rate, January 2017 - August 2020

KEY TAKEAWAY

No significant change in robbery in 2020 over previous year.
RESIDENTIAL BURGLARY

Burglaries involve breaking and entering a residential or commercial premise for the purpose of committing a crime. The weekly residential burglary rate exhibits a downward cyclical trend since January 2017. A further statistically significant decline in residential burglary coincided with the beginning of the pandemic in late winter 2020. With some weekly fluctuation, the residential burglary rate remained flat through the end of August. The average residential burglary rate between March and August of 2020 was 25.3% lower than during the same six-month period the year before.

Figure 6. Weekly Residential Burglary Rate, January 2017 - August 2020

KEY TAKEAWAY

Residential burglary was 25% lower during spring and summer 2020 than the year before.
NONRESIDENTIAL BURGLARY

Nonresidential burglaries abruptly increased during the first week of June 2020 in the 17 cities with available data and decreased to typical levels the following week. The brief spike in nonresidential burglary coincided with the emergence of mass protests against police violence in many cities, which we discuss in the conclusion. Overall, the weekly nonresidential burglary rate between March and August 2020 rose by 124.5% over the same six-month period the year before.

Figure 7. Weekly Nonresidential Burglary Rate, January 2017 - August 2020

KEY TAKEAWAY

Nonresidential burglary spiked by 124% during the first week of June 2020.
LARCENY

Larcenies are thefts unaccompanied by force or breaking and entering. The weekly larceny rate exhibited a pronounced cyclical pattern over time. The weekly larceny rate in the 22 cities with available data decreased significantly in March 2020, rose during the next several months, and fell again in August. Overall, the larceny rate between March and August 2020 decreased by 24% over the same period in 2019.

Figure 8. Weekly Larceny Rate, January 2017 - August 2020

KEY TAKEAWAY

Larceny was 24% lower during spring and summer 2020 than the year before.
MOTOR VEHICLE THEFT

Weekly motor vehicle theft rates rose and fell cyclically with no evident linear trend from January 2017 to the structural break in mid-June of 2020 in the 24 cities with available data. Motor vehicle thefts rose to a peak rate about a month later and then fell during late July and August. Overall, between June and August 2020, the motor vehicle theft rate increased by 11.1% over the same period the year before.

Figure 9. Weekly Motor Vehicle Theft Rate, January 2017 - August 2020

Motor vehicle theft was 11% higher in summer 2020 than summer 2019.

KEY TAKEAWAY
DRUG OFFENSES

Drug offenses include arrests for the manufacture, sale, or possession of illicit drugs. The weekly drug offense rate exhibited a downward cyclical trend until the structural break in March of 2020, when the rate fell sharply, increased during the next two months, and then dropped again. Overall, the drug offense rate between March and August 2020 decreased by 40.6%, dropping to a level far lower than at any time during the previous three and-a-half years.

Figure 10. Weekly Drug Offense Rate, January 2017 - August 2020

Drug offenses were 41% lower in spring and summer 2020 than the year before.
Conclusion

This study updates our previous report for the Council on Criminal Justice on crime changes during the pandemic and the social unrest over police violence in the United States (Rosenfeld and Lopez 2020). The current study reveals statistically significant changes in the rates of property, drug, and violent offenses for a sample of American cities during the spring and summer of 2020. With a key exception, property and drug crime rates decreased, while violent crime rates increased during this period. The exception is nonresidential burglary, which spiked in early June.

The spike in nonresidential burglary is notable for its abruptness, size, brevity, and timing. It interrupted a lengthy period of relatively stable commercial burglary rates and increased to a level more than twice as high as the peak rates of the previous several years. The spike was limited to a single week—the same week in nearly every city where it occurred. The spike took place at the beginning of the period of social unrest after George Floyd’s killing in Minneapolis. But the spike in commercial burglary ended as abruptly as it began, which calls into question claims that property damage and looting persisted as the protests continued through the summer of 2020.

The timing of the declines in residential burglaries, larcenies, and drug offenses coincided with the stay-at-home mandates and business closings in response to the COVID-19 pandemic. Quarantines reduced residential burglary. When businesses are closed, there is no shoplifting. Selling drugs on the street is more difficult when there are fewer people on the street and when police prioritize away from drug enforcement activities.

Rates of homicide and aggravated assault increased significantly in late May and early June of 2020. The increases were followed by declines in July and August. It is too early to tell how long those declines will last. While domestic violence increased during the spring and summer of 2020, we cannot be certain that the increase was greater than during the same period in the past. Therefore, based on the limited available evidence, the recent rise in domestic violence, and the reductions in homicide and serious assaults, cannot be unambiguously tied to the COVID-19 pandemic or to the ebbing of protest activity.

These results underscore the importance for drawing causal inferences of placing recent changes in crime rates in the context of past changes, especially seasonal fluctuations, and of basing conclusions on more than a few weeks of data. We plan on updating this report with additional investigations of crime changes through the end of October 2020 and the end of the year. By then, we may be able to draw stronger conclusions about the sources of changes in violent crime in our cities.

As we concluded in our previous report, city leaders continue to face policy challenges posed by the recent rise in violent crime. Several evidence-based strategies are available to address the increase in violence. Subduing the COVID-19 epidemic also remains a necessary condition for reducing violence. The ability of the police to prevent and
investigate crimes is greatly diminished by social distancing requirements. Social distancing also impedes the anti-violence efforts of street outreach workers by preventing them from engaging directly with those at the highest risk for violence (see Rosenfeld and Lopez, 2020, for details).

Finally, abandoning police reform is not a viable policy option. Protesters have called for increasing accountability for police misconduct and shifting some functions, such as addressing the day-to-day problems of the homeless and responding to drug overdoses, to other agencies and personnel better equipped to handle them. It will not be easy to translate protest ideals into workable public policy, but doing so is essential for improving the relationship between the police and the communities they serve and achieving durable reductions in urban violence.
APPENDIX

This report is based on an examination of weekly changes in ten criminal offenses for 27 U.S. cities between January of 2017 and August of 2020, a total of 191 weeks. The chart below depicts the crimes reported by each city.

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Key
1 - Homicide
2 - Aggravated Assault
3 - Gun Assault
4 - Domestic Violence
5 - Robbery
6 - Residential Burglary
7 - Nonresidential Burglary
8 - Larceny
9 - Motor Vehicle Theft
10 - Drug Offenses